

I CLAIM:

1. An engine system comprising:
an engine,
a pressure regulator coupled to said engine, and including a
5 container having a chamber formed therein, and
a needle tube mechanism disposed in said chamber of said
container and including a block coupled to said engine with a pipe,
to receive gas from said engine, said block includes a slit formed
therein and connected to said pipe and includes a channel formed
10 therein and communicating with said slit thereof and
communicating with said chamber of said container, said slit of said
block including an inner diameter smaller than that of said channel
of said block,
said slit and said channel of said block being arranged to allow
15 the gas from said engine to flow into said pipe and then to flow
through said slit of said block, and then to flow through said
channel of said block, and then into said chamber of said container
when said engine is over-pressurized, and said slit and said channel
of said block being arranged to allow the gas in said chamber of said
20 container to flow into said channel of said block, and then to flow
through said slit of said block, and then to flow into said engine via
said pipe, in order to balance a pressure in said engine when the
pressure in said engine is too low.
2. The engine system as claimed in claim 1, wherein said
25 container includes an opening formed therein and communicating
with said chamber thereof, for pressure relieving purposes.
3. The engine system as claimed in claim 1, wherein said block

includes a control valve attached thereto and engageable into said channel of said block, to control the gas to flow through said channel and said slit of said block.

4. The engine system as claimed in claim 3, wherein said block
5 includes a screw hole formed therein and communicating with said channel of said block, said control valve is threaded to said screw hole of said block, and engageable into said channel of said block.

5. The engine system as claimed in claim 1 further comprising
a water tank coupled to said engine to receive and supply cooling
10 water to said engine, a separator housing coupled between said water tank and said engine to receive heated cooling water and air from said engine, and a storage housing coupled to said water tank to receive the air from said water tank, and coupled to said engine to supply the air into said engine.

15 6. The engine system as claimed in claim 5, wherein said water tank includes an upper portion having a mouth provided thereon and coupled to said separator housing to receive the air from said separator housing, and said mouth is coupled to said storage housing, to supply the air to said storage housing.

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